

App. Serial No 10/522,466
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In the Claims:

Please amend claims 1-22 as indicated below. This listing of claims replaces all prior versions.

1. (Currently amended) A method for, from a timing unit, obtaining configuration data for a data processing apparatus, ~~the apparatus cooperating with a timing unit~~, the method comprising the steps of:

storing configuration data in the timing unit via a circuit element having a value that corresponds to the configuration data;

a) commencing ~~(104)~~ a first mode of the timing unit;
b) detecting ~~(108)~~ a first event, which first event occurs after the commencement of the first mode, the first event being caused by the timing unit and responsive to the value of the circuit element;

e) calculating ~~(110)~~ a first time interval between the commencement of the first mode and the first event;

d) performing ~~(112)~~ a first comparison between the calculated first time interval and a first reference time interval; and

e) determining ~~(116)~~ the configuration data in dependence on the result of the first comparison.

2. (Currently amended) A method as claimed in claim 1, wherein following the step of performing a first comparison, ~~d)~~ the method further comprising the steps of:

I. calculating ~~(214)~~ an error value in dependence on the result of the first comparison;

II. commencing ~~(216)~~ a second mode of the timing unit;

III. detecting ~~(218)~~ a second event, which second event occurs after the commencement of the second mode, the second event being caused by the timing unit;

~~IV.~~ calculating ~~(220)~~ a second time interval between the commencement of the second mode and the second event;

~~V.~~ adjusting ~~(222)~~ the calculated second time interval in dependence on the error value; and

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~~VI.~~ performing (224) a second comparison between the adjusted second time interval and a second reference time interval; ~~and~~

~~VII.~~ wherein the step of determining (228) the configuration data is also in dependence on the result of the second comparison.

3. (Currently amended) A method as claimed in claim 1, wherein following the step of commencing a first mode, a) the method further comprises the step of:
counting time periods.

4. (Currently amended) A method as claimed in claim 2, wherein following the step H of commencing a second mode, the method further comprises the step of:
counting time periods.

5. (Currently amended) A method as claimed in ~~any of claims 2 or 4~~, wherein following step I the method further comprises the step of:
determining configuration data in dependence on the result of the first comparison.

6. (Currently amended) A method as claimed in ~~any of claims 1 to 5~~, wherein [[a]] the first mode is commenced in response to a voltage applied to the data processing apparatus.

7. (Currently amended) A method as claimed in ~~any of claims 1 to 5~~, wherein [[an]] the first event is detected in response to a voltage applied to the data processing apparatus.

8. (Currently amended) A method as claimed in ~~any of claims 1 to 5~~, wherein [[a]] the first mode is commenced in response to software running on the data processing apparatus.

9. (Currently amended) A method as claimed in ~~any of claims 1 to 5~~, wherein [[a]] the

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first mode is commenced in normal operation of the timing unit independently of the data processing apparatus.

10. (Currently amended) A method as claimed in ~~any of~~ claims 3 to 4, wherein ~~[[a]]~~ the first time interval is calculated using the counted time periods.

11. (Currently amended) A method as claimed in ~~any of~~ claims 1 to 5, wherein ~~[[a]]~~ the first time interval is calculated by using a timestamp.

12. (Currently amended) A data processing apparatus ~~operable to interface to a timing unit and to perform a method according to any of the claims 1 to 11, the data processing apparatus comprising:~~

a timing unit to generate a first event signal, the timing unit having a first mode of operation;

a first port (302) operable to receive an the first event signal;

non-volatile storage (306) operable to store a configuration software program and data related to said configuration software program;

storage (308) operable to store data of computation; and

a CPU to calculate a first time interval between commencement of the first mode of operation of the timing unit and the receipt of the first event signal by the first port, to perform a first comparison between the calculated first time interval and a first reference time interval, to determine configuration data in dependence on a result of the first comparison, and (304) operable to run said configuration software program in response to the configuration data.

13. (Currently amended) A data processing apparatus according to claim 12, wherein the first port ~~is further operable to~~ outputs a mode indication signal.

14. (Currently amended) A data processing apparatus according to claim 12, further comprising:

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a second port ~~(312)~~ operable to output a mode indication signal.

15. (Currently amended) A ~~timing unit operable to interface to the~~ data processing apparatus ~~of~~ according to claim 12, wherein the timing unit includes comprising
a first port operable to output ~~an~~ the first event signal; and
a circuit operable to generate said the first event signal.

16. (Currently amended) A ~~timing unit operable to interface to the~~ data processing apparatus ~~of~~ according to claim 13, wherein the timing unit includes comprising
a first port operable to receive ~~[[a]]~~ the mode indication signal and to output ~~an~~ the first event signal; and
a circuit operable to generate said the first event signal in response to and subsequent to the mode indication signal.

17. (Currently amended) A ~~timing unit operable to interface to the~~ data processing apparatus ~~of~~ according to claim 14, wherein the timing unit includes comprising:
a first port operable to receive ~~[[a]]~~ the mode indication signal;
a second port operable to output ~~an~~ the first event signal; and
a circuit operable to generate said the first event signal in response to and subsequent to the mode indication signal.

18. (Currently amended) A ~~timing unit~~ data processing apparatus according to ~~any of~~
~~claims 15 to 17~~ 12, wherein the first event signal is a voltage pulse.

19. (Currently amended) A ~~timing unit~~ data processing apparatus according to ~~any of~~
~~claims 15 to 17~~ 12, wherein the first event signal is a voltage transition.

20. (Currently amended) A ~~timing unit~~ data processing apparatus according to ~~any of~~
~~claims 15 to 17~~ 12, wherein the first event signal is a periodically varying voltage.

21. (Currently amended) A ~~timing unit~~ data processing apparatus according to ~~any of~~

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~~claims 18 to 20~~ 12, wherein the timing unit includes circuit comprises an RC network that determines the first time interval.

22. (Currently amended) A data processing apparatus according to ~~any of claims 12, to 14 comprising~~ wherein the non-volatile storage further stores software configured to calculate the first time interval between commencement of the first mode of the timing unit and the receipt of the first event signal by the first port, to perform the first comparison between the calculated first time interval and the first reference time interval, and to determine the configuration data in dependence on the result of the first comparison. ~~for carrying out the method steps as claimed in any of claims 1 to 11.~~